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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Application of: DAOUD, Bassel H., et al.

Serial No: 10/774,224

Examiner: Levi, Dameon E.

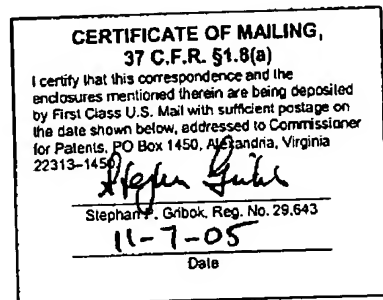
Filing Date: February 6, 2004

Group Art Unit: 2841

For: ELECTROMAGNETIC SHIELD WITH VEE-SLOT
PANEL JOINTS

REQUEST FOR REFUND

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450



Sir:

Applicant request that the fee for one month extension submitted concurrently with this paper, namely \$120.00 be refunded to Deposit Account No. 04-1679.

Applicant's undersigned representative noticed in preparing to respond to the official action that US Pat. 4,754,100 – Sorensen, cited in form PTO-892, was wholly unrelated to the subject matter of this application, and phoned the Examiner to request correct identification of the reference and restarting of the term for response.

The Examiner pointed out that the Sorenson reference had not been relied upon in the rejection, and the Examiner has not restarted the term for response. Nevertheless, applicant reasonably needed to know the prior art that was being cited as pertinent, in order to prepare a proper response.

Applicant's independent search of the prior art for a reference in the pertinent classification having digits in common with Sorensen has turned up US Pat. 4,754,101 – Stickney, which is being cited by applicant. Stickney discloses Vee shapes in a shielding box but not in connection with the mechanical attachment or electrical engagement of parts of the shielding enclosure. The Vee-shaped openings taper to solder pins.

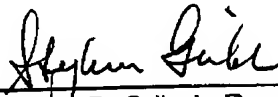
Adjustment Date: 11/30/2005 SDIRETA1
11/09/2005 ZJUHA1 00000061 041679 10774224
01 FC:1251 120.00 CR

In view of the issue of correct citation of references, applicant believes that a request for restarting the term was appropriate. Accordingly, applicant requests reconsideration of the matter, and a refund of the one month extension fee that was incurred.

Respectfully submitted,

Date: Nov. 7, 2005

Docket No. Y0242-303


Stephan P. Gribok, Reg. No. 29,643
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PANEL JOINTS

TRANSMITTAL LETTER

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

<p>CERTIFICATE OF MAILING, 37 C.F.R. §1.8(a) I certify that this correspondence and the enclosures mentioned therein are being deposited by First Class U.S. Mail with sufficient postage on the date shown below, addressed to Commissioner for Patents, PO Box 1450, Alexandria, Virginia 22313-1450.</p> <p><i>Stephan P. Gribok</i> Stephan P. Gribok, Reg. No. 29,643 <u>11-7-05</u> Date</p>
--

Sir:

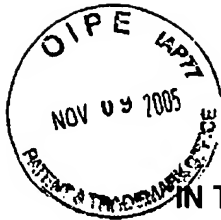
- ☒ Amendment, 37 C.F.R. §1.111
- ☒ Petition for Extension, 37 C.F.R. §1.136(a) – one month
- ☒ Supplemental Information Disclosure, PTO/SB/8a
- ☒ Request for Refund
- ☒ Please charge \$120.00 to Deposit Account No. 04-1679, for payment of the Extension Fee. This Transmittal Letter is submitted in duplicate.
- ☒ Please charge additional fees or credit any refund or overpayment to Deposit Account No. 04-1679.
- ☒ Other: Return Receipt Postcard

Respectfully submitted,

Date: Nov. 7, 2005

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In re: Application of: DAOUD, Bassel H., et al.

Serial No: 10/774,224

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For: ELECTROMAGNETIC SHIELD WITH VEE-SLOT
PANEL JOINTS

AMENDMENT, 37 C.F.R. §1.111

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

<p>CERTIFICATE OF MAILING, 37 C.F.R. §1.8(a) I certify that this correspondence and the enclosures mentioned therein are being deposited by First Class U.S. Mail with sufficient postage on the date shown below, addressed to Commissioner for Patents, PO Box 1450, Alexandria, Virginia 22313-1450.</p> <p><i>Stephen P. Gribok</i> Stephen P. Gribok, Reg. No. 29,643 11-7-05 Date</p>
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Introductory Statement

Applicant submits this amendment in response to the official action mailed July 22, 2005. This amendment contains:

- Amendment of the claims including a complete listing of the pending claims to replace the claims of record (no claims are added and no fee is required);
- Remarks
- Petition for Extension (one month);
- Supplemental Information Disclosure Statement and form PTO-SB/8a (no fee is required), citing US Pat. 4,754,101 – Stickney et al.
- Request for Refund of Extension Fee;
- Transmittal Letter containing a charge authorization for the required official fee for the Extension; and,
- Return Receipt Postcard

WHAT IS CLAIMED IS:

1 1(currently amended). An electromagnetic shielding structure,
2 comprising:
3 at least one elongated first element defining an electrically conductive
4 barrier surface against propagation of electromagnetic energy through said first
5 element;
6 at least one second element, generally oriented along the conductive
7 barrier surface defined by the first element, for continuing said barrier surface
8 against propagation of electromagnetic energy;
9 wherein at least one of the first and second elements has at least a
10 portion of a limited length, oriented to cross a plane of ~~with~~ the barrier surface
11 defined by the other of said first and second elements, wherein said portion
12 has a receiving slot into which the other of said first and second elements is
13 insertable, said receiving slot having an inside width that is nominally smaller
14 than an outside width of said other of said first and second elements for
15 insertion into the receiving slot, wherein at least one of said receiving slot and
16 said other of the first and second elements is deformed by said insertion, and
17 wherein the first and second elements are electrically and mechanically
18 connected by said insertion.

1 2(original). The shielding structure of claim 1, wherein the first and
2 second elements comprise walls of a shielding enclosure.

1 3(original). The shielding structure of claim 2, wherein the walls of the
2 shielding enclosure extend in parallel planes and overlap one another.

1 4(original). The shielding structure of claim 2, wherein the walls of the
2 shielding enclosure meet along a right angle edge.

1 5(currently amended). The shielding structure of claim 3, wherein the
2 portion oriented to cross the barrier surface comprises a tab cut from a section
3 of said one of the first and second elements, said tab defining that has the
4 limited length portion, wherein the tab is bent from the plane of said section so
5 as to cross the plane of the barrier surface defined by the other of said
6 first and second elements, and wherein the receiving slot is disposed
7 along said tab.

1 6(original). The shielding structure of claim 3, wherein the portion
2 oriented to cross the barrier surface comprises one of a concavity and a
3 convexity at which a section of said one of the first and second elements is
4 deformed to provide said portion.

1 7(original). The shielding structure of claim 1, wherein the portion
2 comprises a connector having a vee groove with converging sides leading into
3 a slot, wherein the slot at least partly defines the receiving slot for said insertion.

1 8(original). The shielding structure of claim 1, wherein the portion has
2 a groove leading into a slot with parallel sides, wherein the slot at least partly
3 defines the slot for said insertion.

1 9(original). The shielding structure of claim 1, wherein the portion
2 comprises at least one insulation displacement connector fitting having
3 converging knife edges

1 10(currently amended). A method for electromagnetically shielding a
2 load, comprising the steps of:
3 defining a shielding enclosure around the load for blocking at least one of
4 ingress and egress of electromagnetic energy;

5 placing a first element comprising a conductive material to provide a
6 conductive barrier surface encompassing part of the shielding enclosure;
7 continuing the conductive barrier surface by placing at least one second
8 element comprising a conductive material, to encompass a further part of the
9 shielding enclosure, wherein the second element is generally oriented along the
10 conductive barrier surface defined by the first element;
11 crossing the first and second elements over at least at least a portion
12 limited length along one of the first and second elements having a receiving
13 slot; ~~wherein~~
14 sizing the receiving slot with ~~has~~ an inside width that is nominally
15 smaller than an outside width of said other of said first and second elements for
16 insertion into the receiving slot so as to provide an interference fit of said
17 other of said first and second elements into the receiving slot;
18 forcibly inserting an edge of the other of said first and second elements
19 into the receiving slot, thereby deforming at least one of said receiving slot and
20 said edge inserted therein, wherein insertion of the edge in the receiving slot
21 mechanically attaches and electrically couples the first and second elements.

Remarks

This amendment is responsive to the official action of Paper No. 04142005, mailed July 22, 2005. A request for one month Extension under 37 C.F.R. §1.136(a) is submitted with a charge authorization for the required fee that appears on the attached Transmittal Letter. Applicant also submits a Supplemental Information Disclosure Statement (no fee required). Finally, a Request for Refund as to the extension fee is submitted on grounds stated therein.

Claims 1-10 are pending. Claims 1 and 10 are independent, with claim 1 being an apparatus claim and claim 10 being a method claim. Claims 1-10 are rejected in the official action as anticipated by US Pat. 5,354,951 – Lange, Sr., et al. under 35 U.S.C. §102. The claims have been amended to better distinguish over the prior art, including Lange. Reconsideration and withdrawal of the rejection are requested.

The invention concerns a shielding box having conductive parts that are mechanically affixed together and electrically connected by defined structures. The prior art of record shows that shielding boxes are conventional, *per se*. However there is no example anywhere in the prior art of record wherein the mechanical engagement and electrical connection of the conductive parts is achieved according to applicant's invention as particularly claimed. There is no basis of record to assert that the invention claimed as a whole is disclosed in the prior art, and there is no reason to believe that the invention claimed as a whole would have been obvious. Therefore, the application is in condition for allowance.

In the cited prior art patent to Lange, as in a number of other references cited, a shielding box is defined by wholly or partly overlapping panels, typically as a body part and a lid part. The panels that overlap in the prior art are parallel to the plane of overlap. Tabs are formed along one of the panels, the tabs also all being parallel to the plane of overlap, such that an area or line of contact extends over the full width of the tabs.

In Lange, successive tabs along one such panel as described are placed in alternating positions inside and outside the plane of the opposed panel. In other prior art references, the tabs all reside on one side of the opposed panel. Nevertheless, in every prior art reference of record, the tabs are made to lay flat such that the surfaces of the tabs bear resiliently against the surface of the opposed panel in a flat face-to-face or face-to-edge contact over the width of the tabs. The prior art does not disclose or suggest applicant's invention wherein tabs are provided with slots that cross the plane of the opposed panel and receive the opposed panel in the slots.

The alternating tabs in Lange are clearly shown in Figs. 2, 4 and 5. The assembled parts are shown in Figs. 1, 6, and 7.

In Lange, when the body part and lid part are assembled, the odd tabs reside on one side of the opposed panel and the even tabs reside on the opposite side. The odd and even tabs bear resiliently inwardly on opposite sides of the panels.

Lange does not teach or suggest tabs or other portions of limited length that are diverted from the plane and provided with a slot that engages the panel of the opposed part. On the contrary, the tabs all lie flat against one side or the other of the opposed panel. There is no mechanical engagement involving fitting one panel into a slot formed in a tab or the like of the other panel.

Assuming that the person of ordinary skill might somehow regard two or more successive tabs in Lange as a portion of limited width, without a hindsight knowledge of applicant's invention, the Lange structure still does not meet applicant's invention claimed as a whole. Fig. 5 of Lange clearly shows that the slots between the tabs are at least twice as wide as the thickness of the sheet material. Lange's engagement is limited to opposed flat finger tabs and does not involve mechanical and electric engagement involving slots between the finger tabs. On the contrary, Lange provides slot clearance, and achieves mechanical and electric contact by face-to-face engagement of the tabs and panels. Lange and the other prior art fail to disclose or suggest a shielding arrangement mounted by pinching the sheet material of one panel in a slot in an opposed tab where there is an interference fit.

Referring to applicant's Figs. 1-3, mechanical and electrical engagement is made by with a portion of one of the panels, in this case tab 84, that diverges from the plane of its wall 54 to cross the plane of the opposed wall 64. A slot in at least one of the crossing panel portions engages the other panel portion. In this example, slot 75 is provided to engage the wall 64 in the slot 75. In preferred arrangements, both panels have converging slots and the slots achieve an interference fit assembly, which is illustrated in successive stages by applicant's Figs. 2 and 3. This arrangement is unlike that shown in Lange and the other prior art.

In the official action, the claims are compared to the prior art. Independent claims 1 and 10 have been amended to better distinguish over the prior art. Independent claim 1 recites:

*at least one of the first and second elements has at least a portion of a limited length, **oriented to cross a plane of the barrier surface** defined by the other of said first and second elements, wherein said portion has a **receiving slot into which the other of said first and second elements is insertable**, said receiving slot having an **inside width that is nominally smaller than an outside width of said other of said first and second elements for insertion into the receiving slot**, wherein at least one of said receiving slot and said other of the first and second elements is deformed by said insertion . . .*

Claim 1 thus particularly recites the engagement using a receiving slot engagement, and the receiving slot engagement is such that the slot width is less than the thickness of the panel part it receives. The resulting interference fit provides electrical and mechanical engagement. This subject matter is not disclosed in Lange. There is no basis to assert that Lange teaches or suggests any similar arrangement. The rejection for anticipation is overcome and there is no basis to substitute a rejection for obviousness.

Independent claim 10 likewise now recites *sizing the receiving slot with an **inside width that is nominally smaller than an outside width of said other of said***

first and second elements for insertion into the receiving slot so as to provide an interference fit of said other of said first and second elements into the receiving slot and forcibly inserting the parts during assembly. This subject matter is not found in or suggested by the prior art.

Among the references that are cited in addition to Lange are various finger tabs, typically residing all on one side of an opposed element that is to be resiliently affixed. Even if such devices are modified to alternate tabs as in Lange, the only technique reasonably disclosed, taught or suggested in the prior art is to provide resilient tabs that lay flat on their opposed surfaces. There is no suggestion of a slot.

Applicant has taken this opportunity to cite Pat. 4,754,101 – Stickney, which is believed to have been misidentified in the official action by Pat. 4,754,100 – Sorensen, which seems to have been a keystroke error. The Stickney patent is another example of flat-face engaged tabs, in this case with the inner faces of tabs 26 (termed engagement prongs) bearing against the edge of the lid panel. Stickney has Vee-shaped structures between solder pins 20, but there is no mechanical or electrical engagement disclosed or suggested that might resemble or lead routinely to applicant's invention claimed as a whole.

For the foregoing reasons, claims 1, 10 are properly allowable over the prior art. There is no single reference that meets the elements that are particularly claimed. There is no group or combination of references that could lead routinely to the invention claimed as a whole.

Claims 2-9 depend from claim 1 and recite additional details. Claim 5 particularly defines applicant's the tab orientation shown in Figs. 1-3, which it unlike the prior art. Claim 6 defines the arrangement shown in Figs. 6 and 7 where the slotted part is in a connecting wall to flat wall portion. Claim 9 recites that the slot is provided with converging knife edges. These aspects are also not found or suggested in the prior art of record.

The differences between the invention and the prior art are such that the subject matter claimed as a whole is not shown to have been known or obvious. Therefore, the application is in condition for allowance. Reconsideration and allowance are hereby requested.

Respectfully submitted,

Date: Nov. 7, 2005

Stephan P. Gribok

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Docket No. Y0242-303



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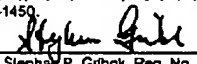
Filing Date: February 6, 2004

Group Art Unit: 2841

For: ELECTROMAGNETIC SHIELD WITH VEE-SLOT
PANEL JOINTS

PETITION FOR EXTENSION
37 C.F.R. §1.136(a)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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Sir:

Applicant requests retroactive extension of the term for response to the official action mailed July 22, 2005, to and including the filing of the accompanying response. The required fee for the requested one month extension is submitted herewith by a charge authorization on the accompanying Transmittal Letter. However, applicant concurrently requests that any extension fee be refunded, as provided on an attached Request for Refund.

Respectfully submitted,

Date: Nov. 7, 2005



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For: ELECTROMAGNETIC SHIELD WITH VEE-SLOT
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**SUPPLEMENTAL INFORMATION
DISCLOSURE STATEMENT**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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--

Enclosed herewith is a Supplemental Information Disclosure Statement pursuant to 37 C.F.R. §1.56 in connection with the above-identified application, which statement is being filed:

☐ Together with the present application.

☐ Before the first Office Action on the merits or three (3) months from the filing date of this application, whichever occurs last. [37 C.F.R. § 1.97(b)]

☒ After the first Office Action on the merits, but before a Final Office Action under §1.113 or Notice of Allowance under §1.311, whichever occurs first. [37 C.F.R. §1.97(c)]. *(Either the fee or certification is provided, as set forth below).*

☐ After a Final Office Action under §1.113 or Notice of Allowance under §1.311, but prior to or with payment of the Issue Fee. [37 C.F.R. §1.97(d)]. *The fee and certification are provided, as set forth below).*

Consistent with Applicant's obligations pursuant to 37 C.F.R. §§1.97 and 1.98, the following requirements have been met:

☒ No separate requirements are needed.

☒ No additional fee is required.

I. Concise Statement of Relevance

☒ The cited reference is believed to be the reference that was intended in the citation of Sorensen, Pat. 4,754,100 on form PTO-892 accompanying the official action of July 22, 2005. The cited reference has Vee-shapes that are not used in connection with a joint between members of a shielding enclosure.

II. Fee Under 37 C.F.R. § 1.97(c) or 1.97(d)

☒ No fee is required.

III. Certification Under 37 C.F.R. § 1.97(e)

The undersigned certifies:

☐ 1 that each item of information contained in the information disclosure statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement; or

☒ 2 that no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the statement after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in §1.56(c) more than three months prior to the filing of the information disclosure statement.

IV. Provision of Copies of References

☒ Pursuant to the order of the Deputy Commissioner dated July 11, 2003, copies of the U.S. patent references are not enclosed.

☐ A translation of Reference _____ is enclosed herewith and forms a part hereof.

☐ Copies of the non – U.S. patent references is/are enclosed.

V. Identification of Prior Application(s) In Which Listed Information Was Already Cited And For Which No Copies Are Submitted Or Need Be Submitted

☐ This application relies, under 35 U.S.C. § 120, on the earlier filing date of prior U.S. Application No(s). _____, filed _____. The following references were submitted to, and/or cited by, the Office in the prior application(s) and therefore are not required to be provided in this application:

Respectfully submitted,

Date: Nov. 7, 2005



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Attorney Docket No.: Y9242-303



PTO/SB/08A (10-01)

Approved for use through 07/31/2006. OMB 0651-0031

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Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)	Complete if Known	
	Application Number	10/774,224
	Filing Date	February 6, 2004
	First Named Inventor	Daoud, B., et al.
	Art Unit	2841
	Examiner Name	Levi, D.
	Attorney Docket Number	Y0242-303

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code (If known)			
	A	4,754,101	06-28-1988	Stickney et al.	
	B				
	C				
	D				
	E				
	F				
	G				
	H				
	I				
	J				
	K				

FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Figures Appear	T
		Country Code - Number - Kind Code (If known)				

Examiner Signature		Date Considered	
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*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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